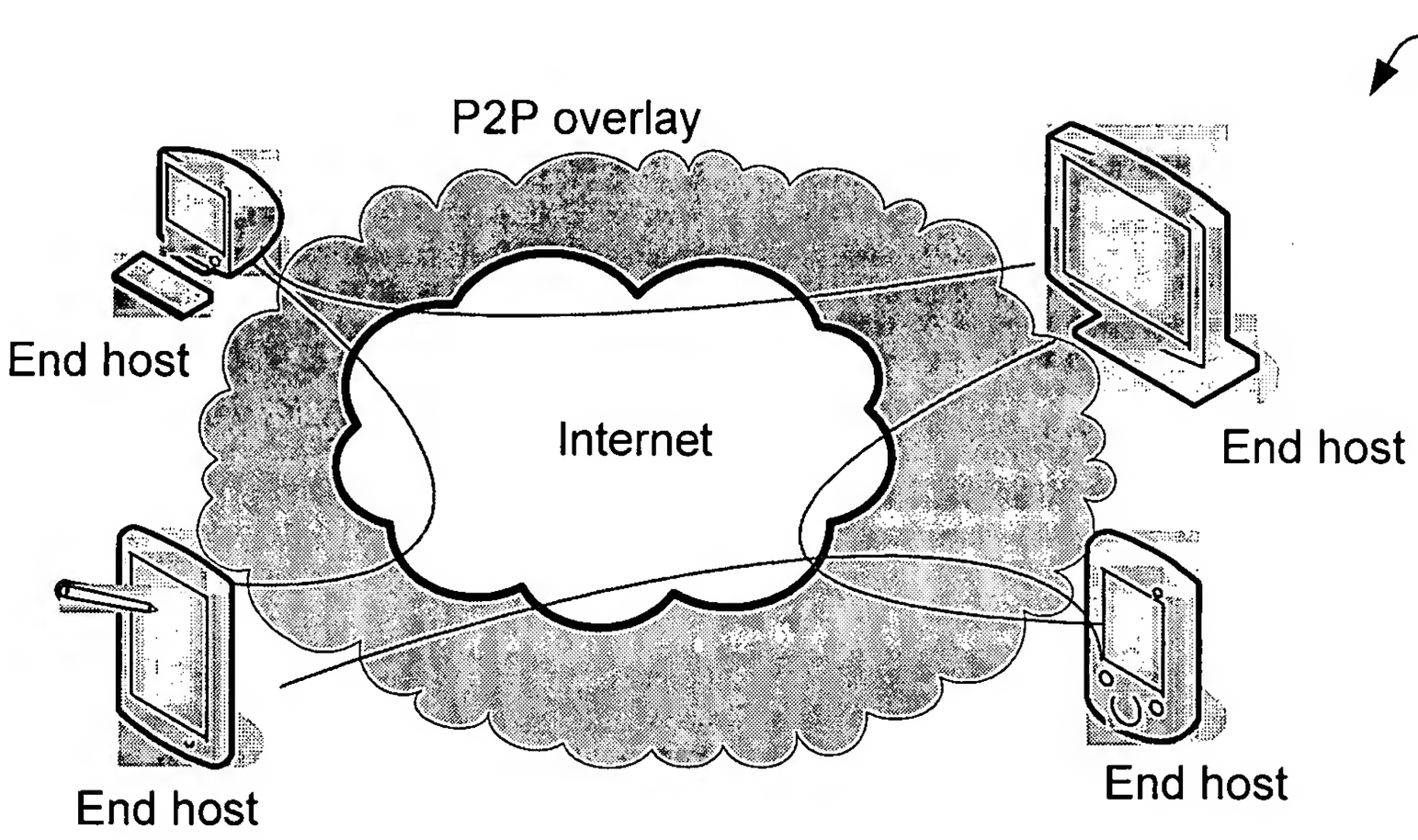


Figure 1a (Related Art)

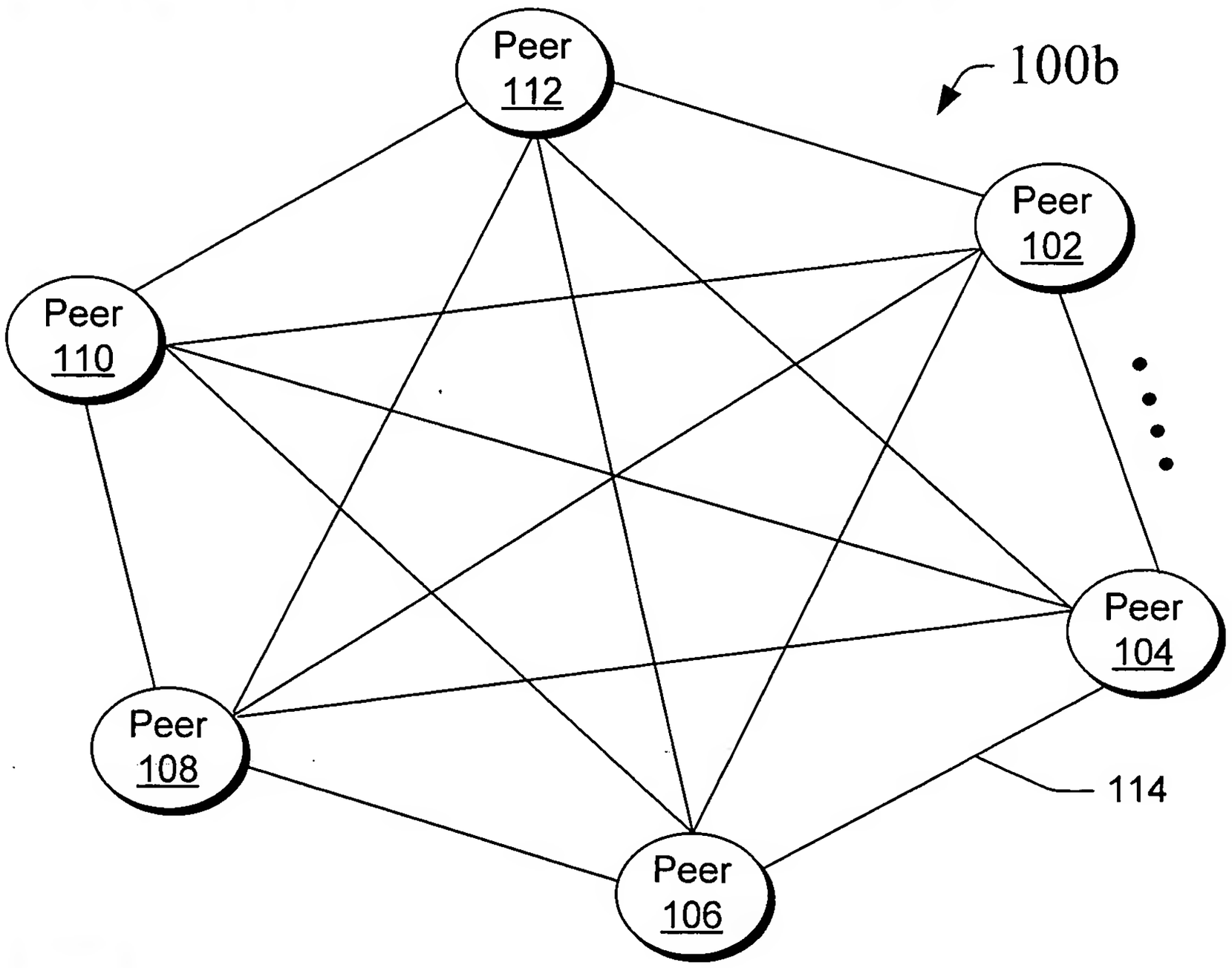


Figure 1b (Related Art)

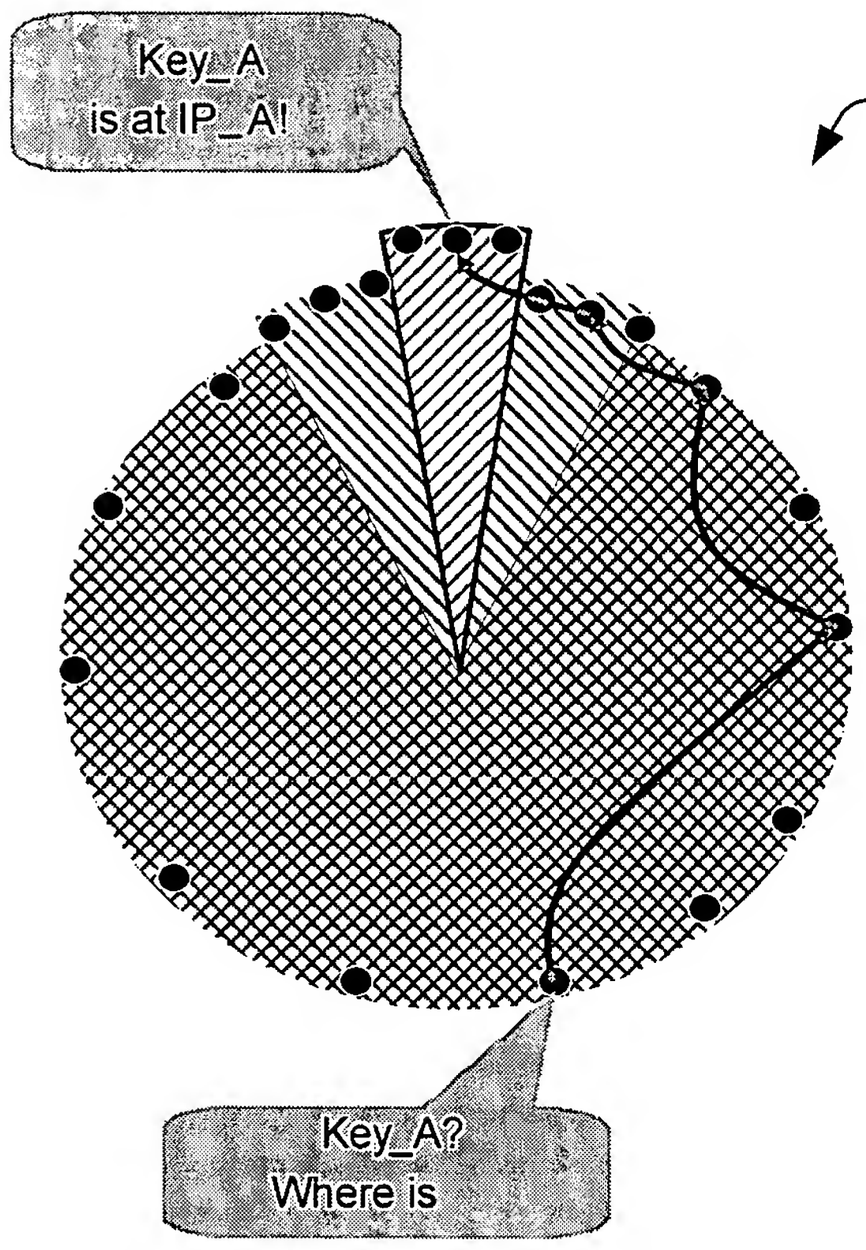
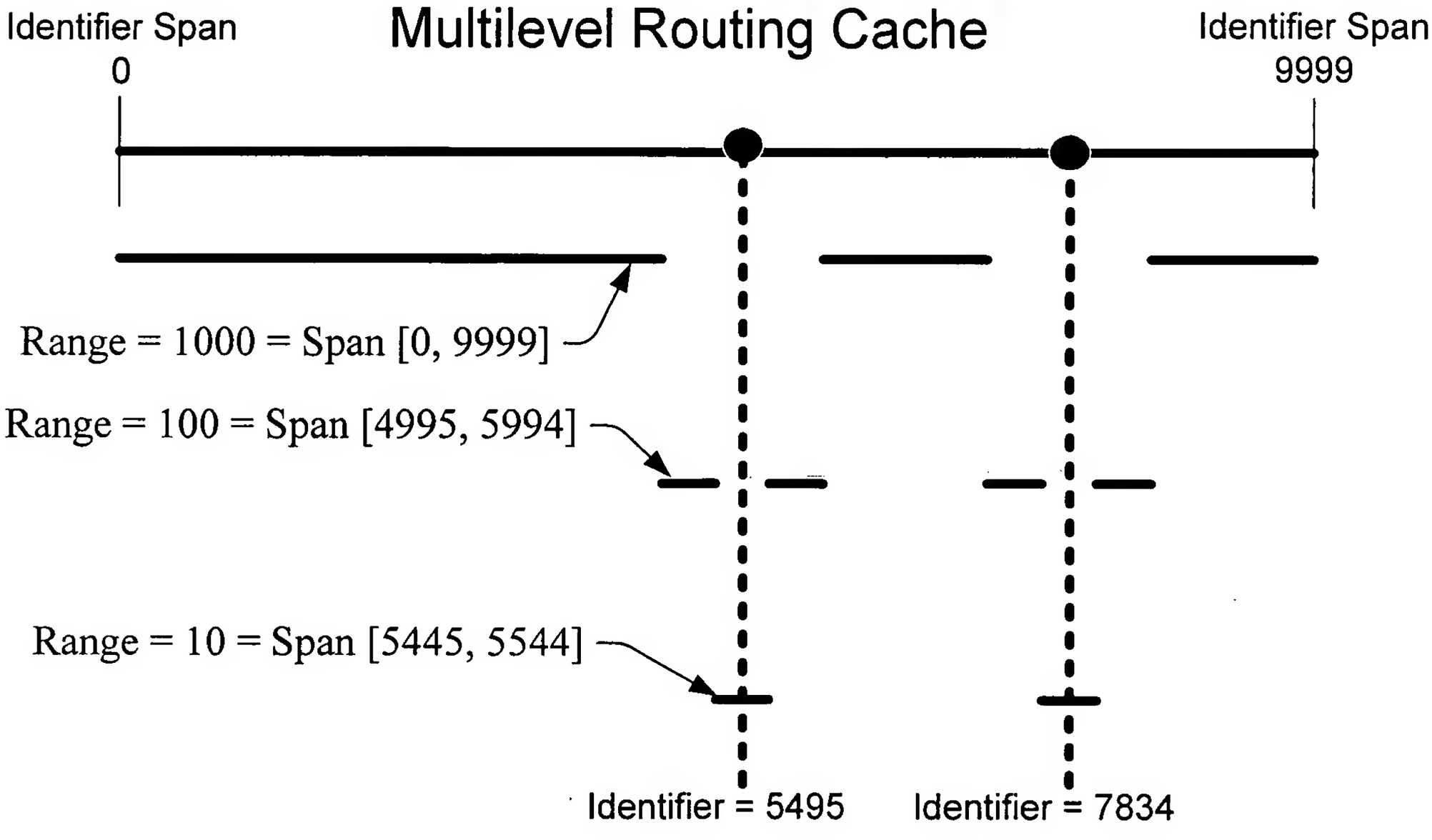


Figure 2
(Related Art)

Figure 3 (Related Art)



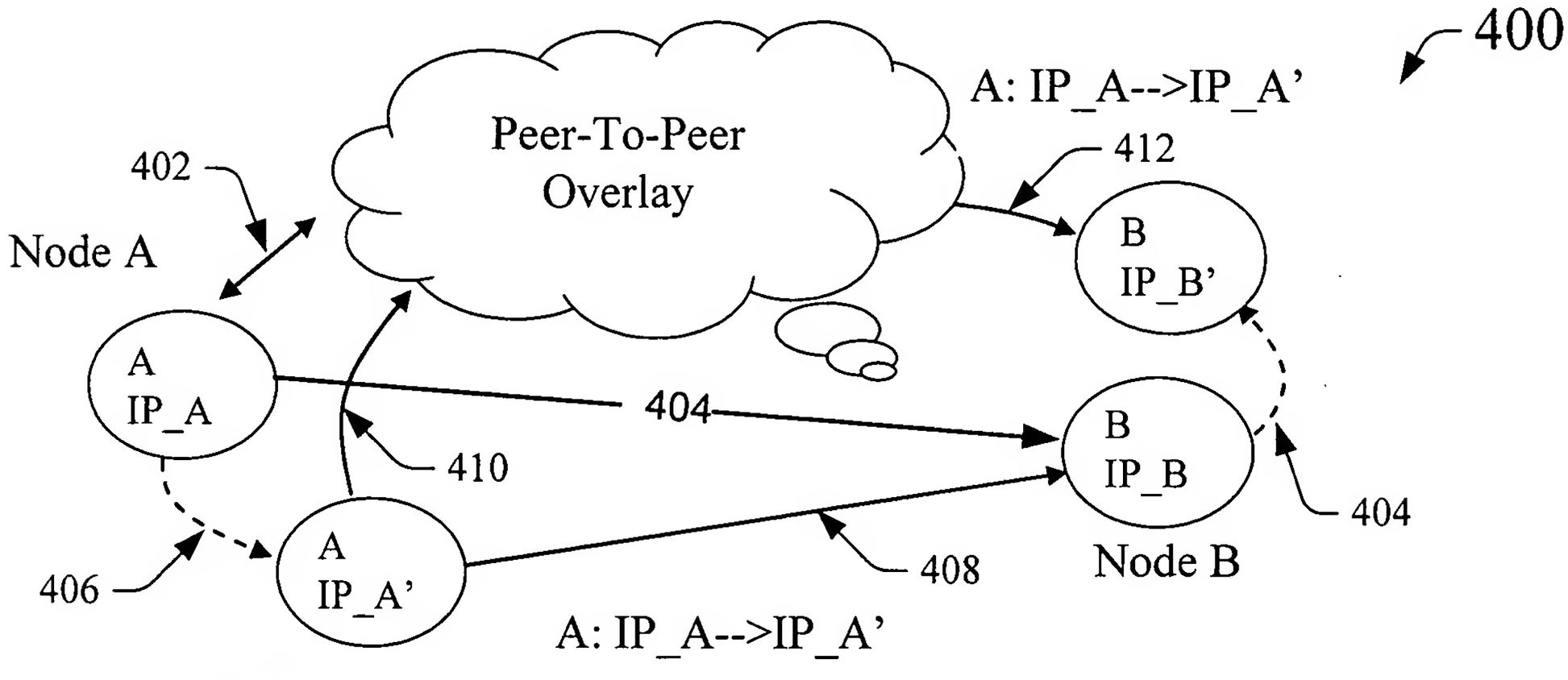


Figure 4 (Related Art)

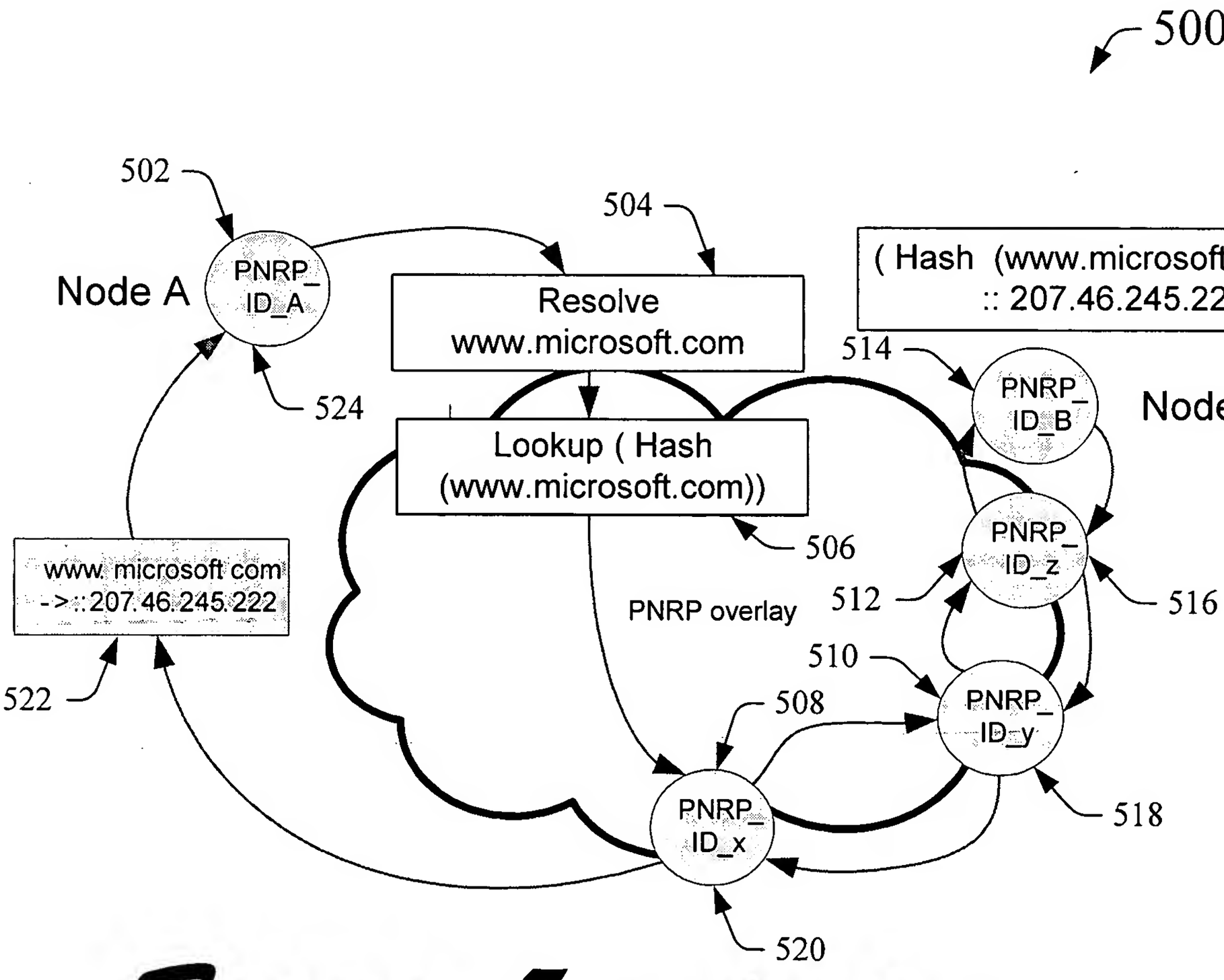


Figure 5 (Related Art)

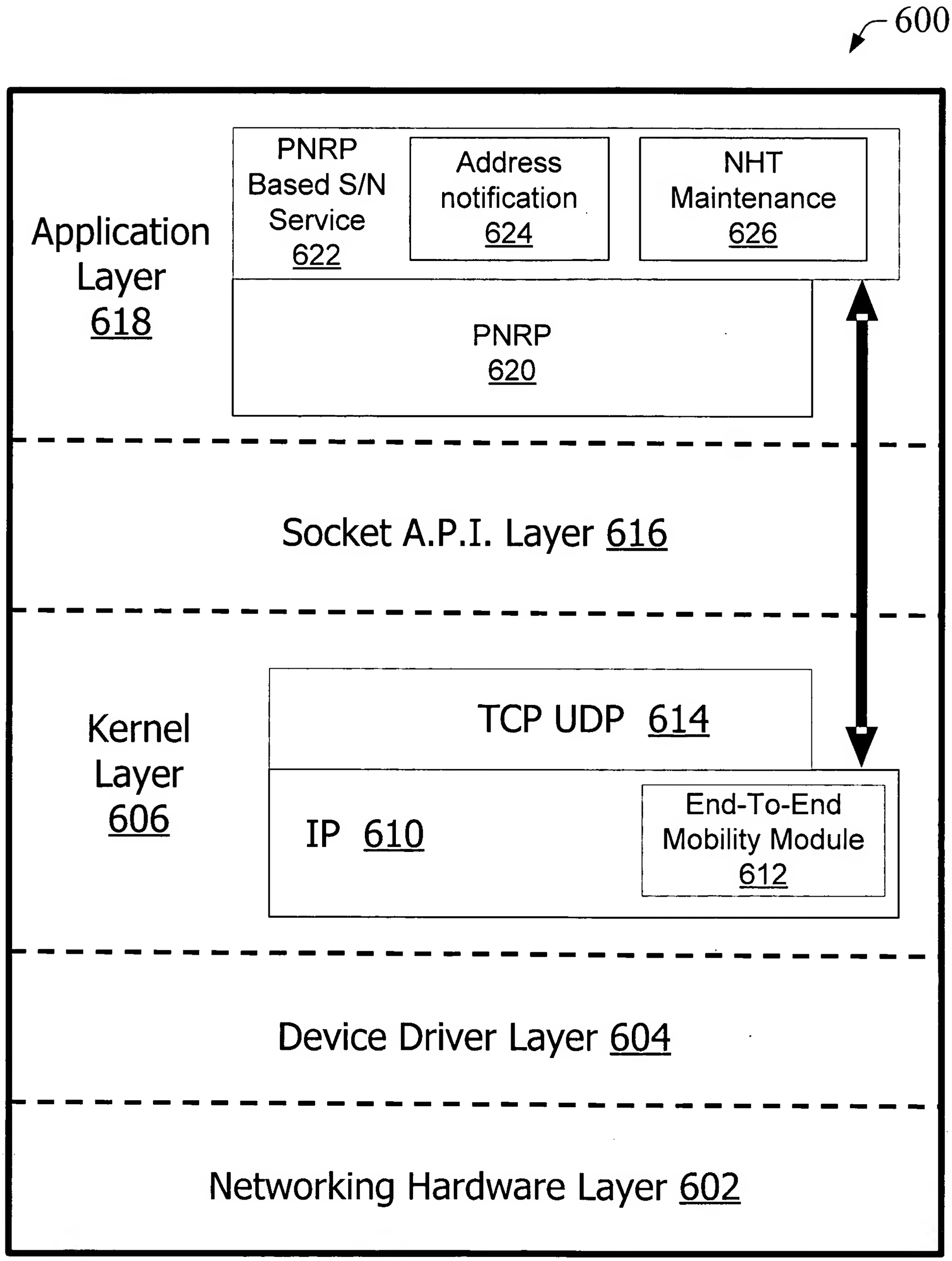

600
Application Layer 618
PNRP Based S/N Service 622
Address notification 624
NHT Maintenance 626
PNRP 620
Socket A.P.I. Layer 616
Kernel Layer 606
TCP UDP 614
IP 610
End-To-End Mobility Module 612
Device Driver Layer 604
Networking Hardware Layer 602

Figure 6

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Figure 7

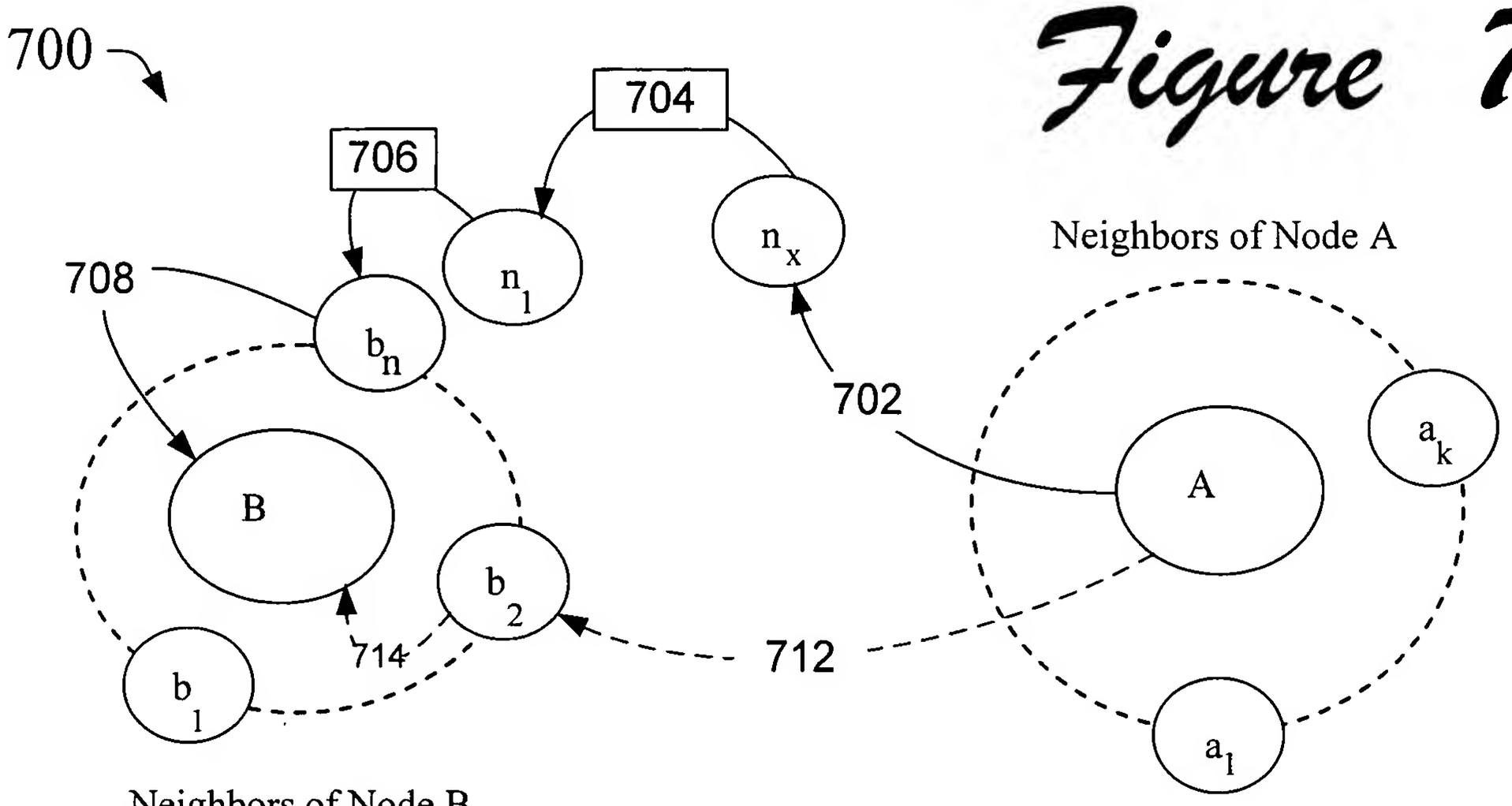
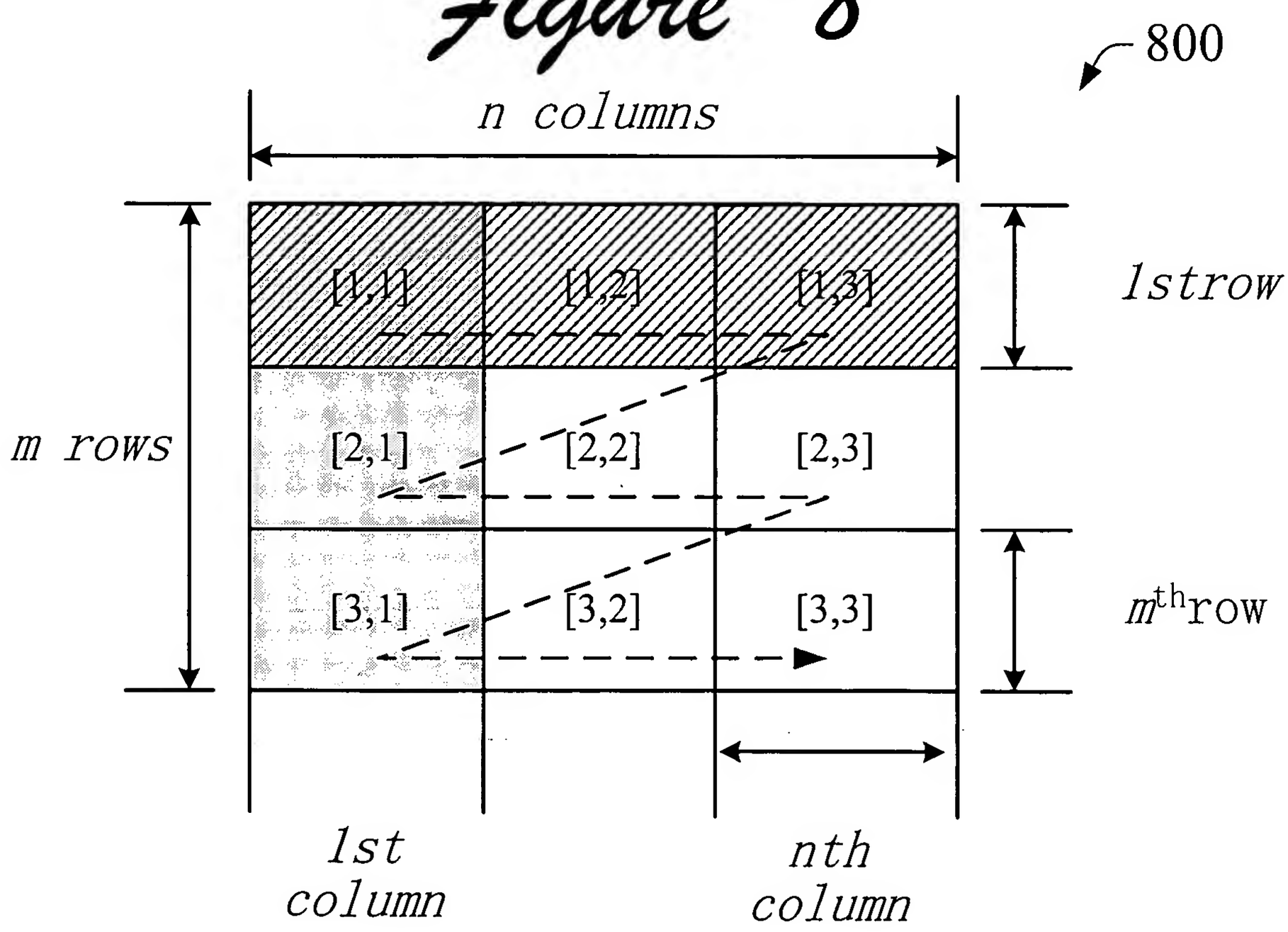


Figure 8



Prioritized Neighbor Hint Table (NHT)

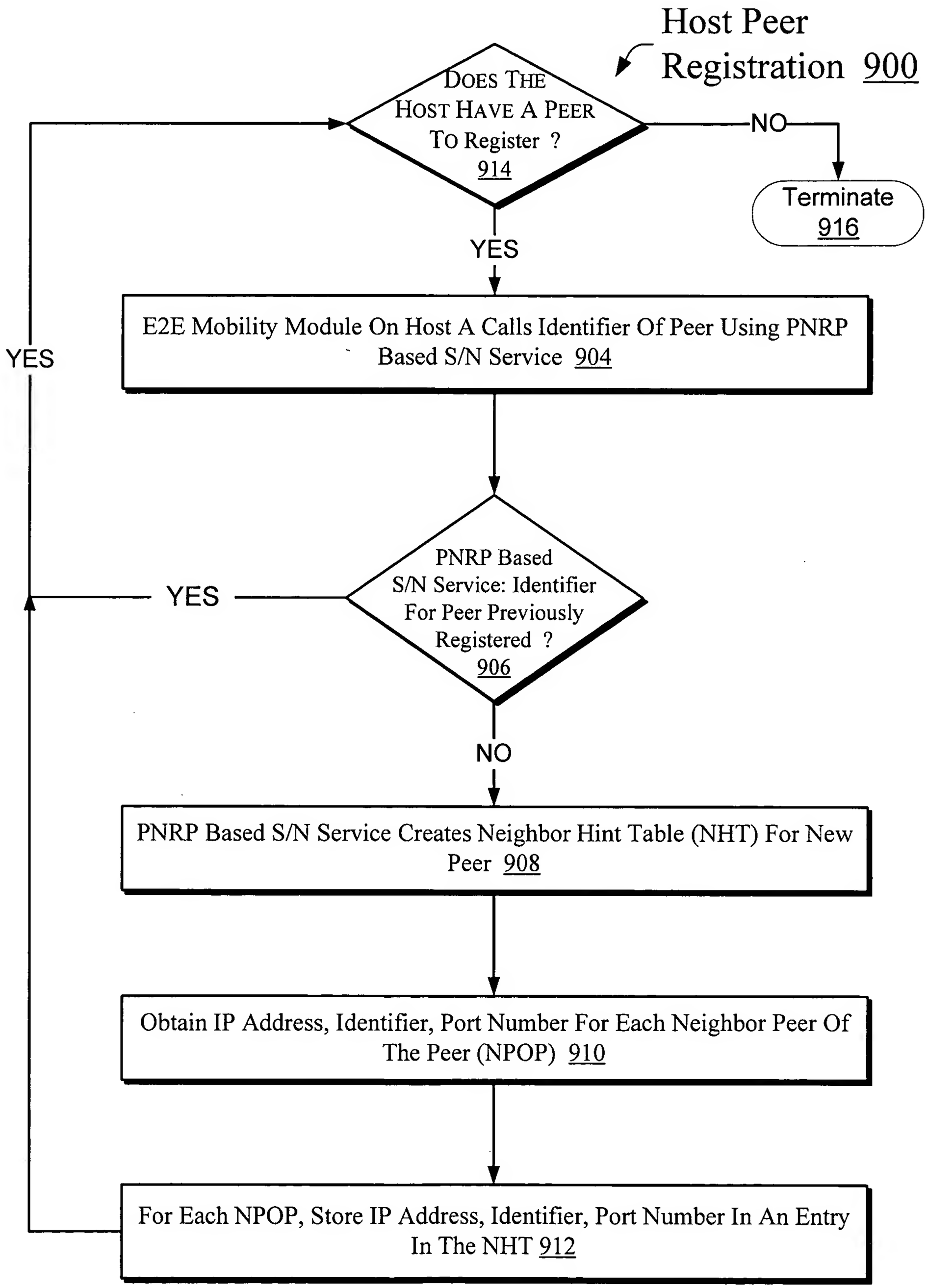

Host Peer Registration 900
Does The Host Have A Peer To Register ? 914
NO
Terminate 916
YES
E2E Mobility Module On Host A Calls Identifier Of Peer Using PNRP Based S/N Service 904
YES
PNRP Based S/N Service: Identifier For Peer Previously Registered ? 906
NO
PNRP Based S/N Service Creates Neighbor Hint Table (NHT) For New Peer 908
Obtain IP Address, Identifier, Port Number For Each Neighbor Peer Of The Peer (NPOP) 910
For Each NPOP, Store IP Address, Identifier, Port Number In An Entry In The NHT 912

Figure 9

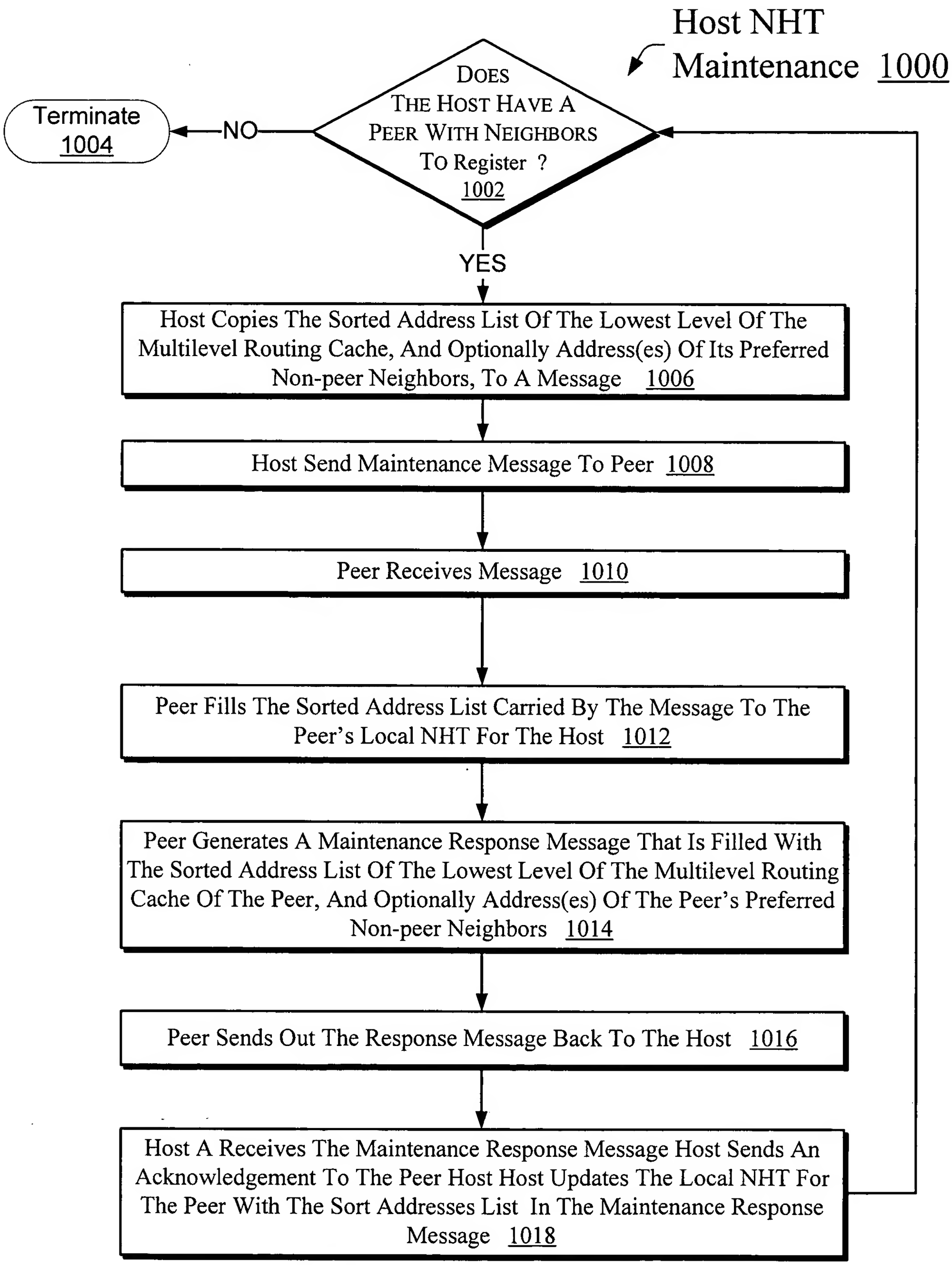

Host NHT Maintenance 1000
Does The Host Have A Peer With Neighbors To Register ? 1002
NO
Terminate 1004
YES
Host Copies The Sorted Address List Of The Lowest Level Of The Multilevel Routing Cache, And Optionally Address(es) Of Its Preferred Non-peer Neighbors, To A Message 1006
Host Send Maintenance Message To Peer 1008
Peer Receives Message 1010
Peer Fills The Sorted Address List Carried By The Message To The Peer's Local NHT For The Host 1012
Peer Generates A Maintenance Response Message That Is Filled With The Sorted Address List Of The Lowest Level Of The Multilevel Routing Cache Of The Peer, And Optionally Address(es) Of The Peer's Preferred Non-peer Neighbors 1014
Peer Sends Out The Response Message Back To The Host 1016
Host A Receives The Maintenance Response Message Host Sends An Acknowledgement To The Peer Host Host Updates The Local NHT For The Peer With The Sort Addresses List In The Maintenance Response Message 1018

Figure 10

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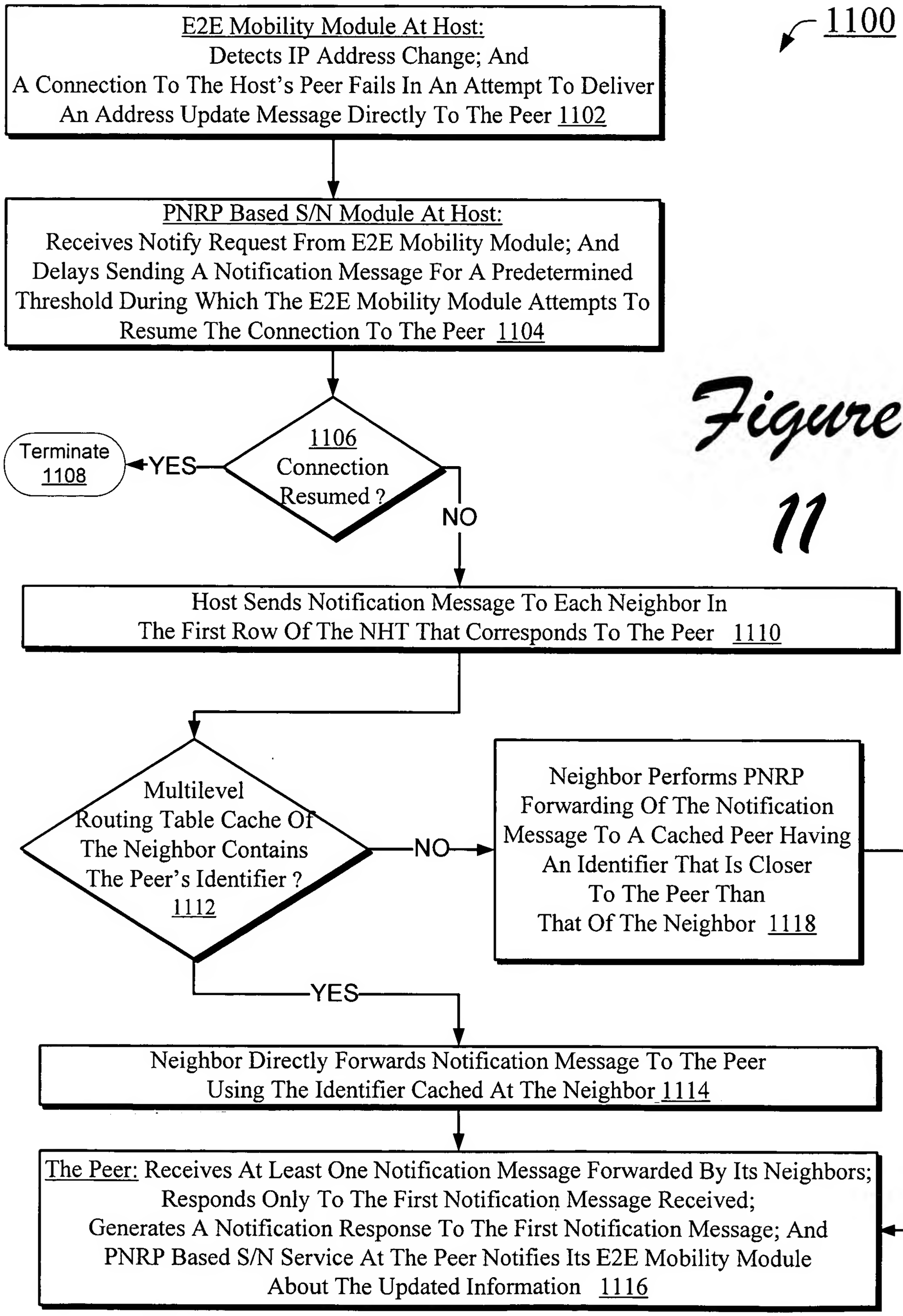
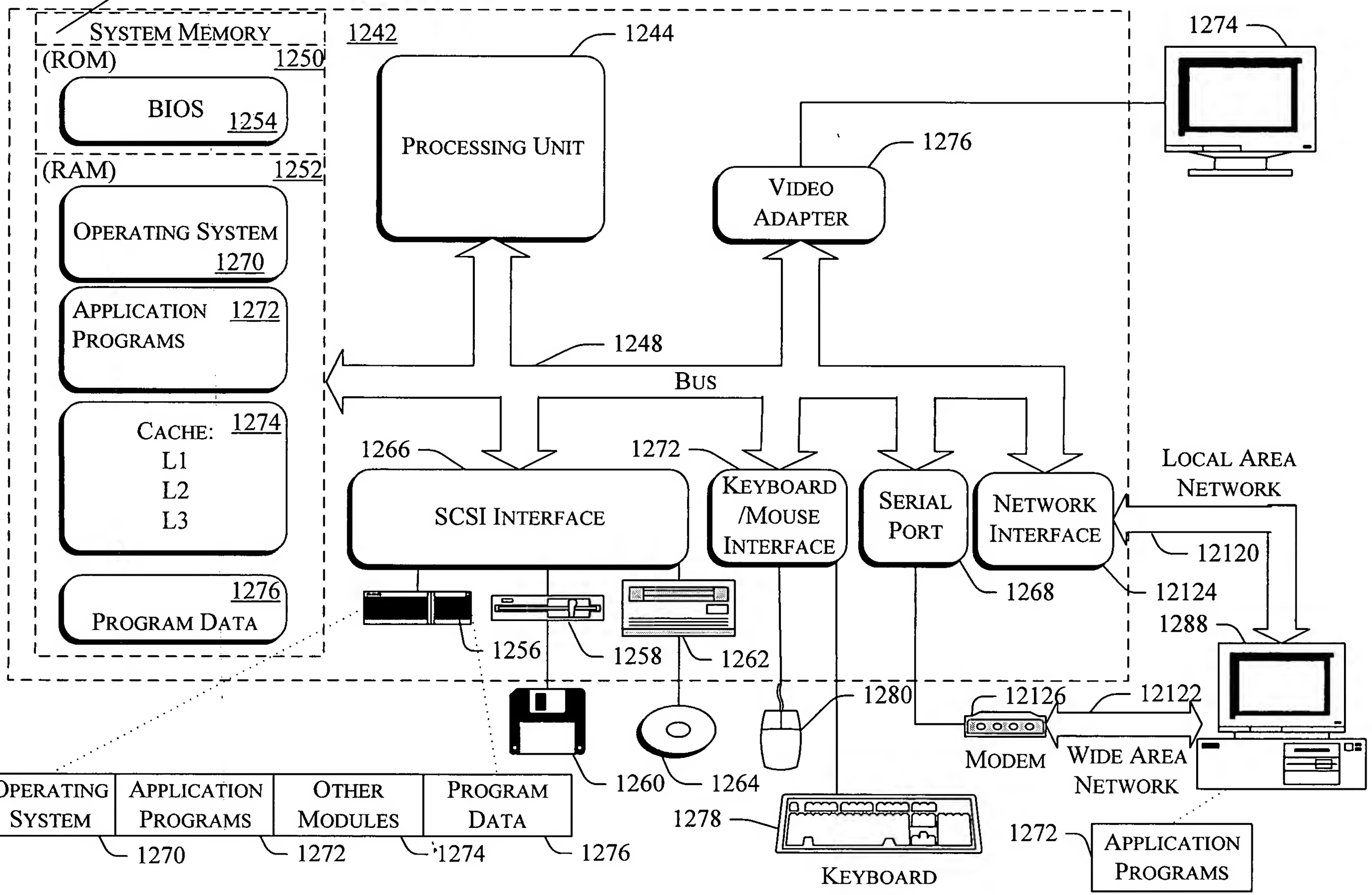


Figure 11

Figure 12


1246
SYSTEM MEMORY
(ROM) 1250
BIOS 1254
(RAM) 1252
OPERATING SYSTEM 1270
APPLICATION PROGRAMS 1272
CACHE: 1274
L1
L2
L3
1276
PROGRAM DATA
1242
1244
PROCESSING UNIT
1248
BUS
1274
1276
VIDEO ADAPTER
1266
SCSI INTERFACE
1272
KEYBOARD /MOUSE INTERFACE
SERIAL PORT
NETWORK INTERFACE
LOCAL AREA NETWORK
12120
12124
1268
1288
1256
1258
1262
1280
12126
12122
MODEM
WIDE AREA NETWORK
1260
1264
1278
KEYBOARD
1272
APPLICATION PROGRAMS
OPERATING SYSTEM
APPLICATION PROGRAMS
OTHER MODULES
PROGRAM DATA
1270
1272
1274
1276